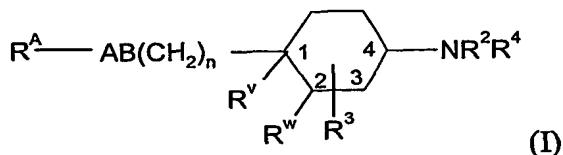


Claims

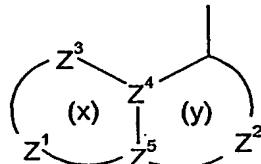
1. A compound of formula (I) or a pharmaceutically acceptable derivative thereof:



wherein:

R^V and R^W are hydrogen or R^V and R^W together are a bond;

10 R^A is an optionally substituted bicyclic carbocyclic or heterocyclic ring system of structure:



containing 0-3 heteroatoms in each ring in which:

at least one of rings (x) and (y) is aromatic;

15 one of Z^4 and Z^5 is C or N and the other is C;

Z^3 is N, NR^{13} , O, $S(O)_X$, CO, CR^1 or CR^1R^{1a} ;

Z^1 and Z^2 are independently a 2 or 3 atom linker group each atom of which is independently selected from N, NR^{13} , O, $S(O)_X$, CO, CR^1 and CR^1R^{1a} ;
such that each ring is independently substituted with 0-3 groups R^1 and/or R^{1a} ;

20 R^1 and R^{1a} are independently selected from hydrogen; hydroxy; (C_{1-6}) alkoxy optionally substituted by (C_{1-6}) alkoxy, amino, piperidyl, guanidino or amidino any of which is optionally N-substituted by one or two (C_{1-6}) alkyl, acyl or (C_{1-6}) alkylsulphonyl groups, CONH₂, hydroxy, (C_{1-6}) alkylthio, heterocyclithio, heterocyclxy, arylthio, aryloxy, acylthio, acyloxy or (C_{1-6}) alkylsulphonyloxy; (C_{1-6}) alkoxy-substituted (C_{1-6}) alkyl; hydroxy (C_{1-6}) alkyl; halogen; (C_{1-6}) alkyl; (C_{1-6}) alkylthio; trifluoromethyl; trifluoromethoxy; cyano; carboxy; nitro; azido; acyl; acyloxy; acylthio; (C_{1-6}) alkylsulphonyl; (C_{1-6}) alkylsulphoxide; arylsulphonyl; arylsulphoxide or an amino, piperidyl, guanidino or amidino group optionally N-substituted by one or two (C_{1-6}) alkyl, acyl or (C_{1-6}) alkylsulphonyl groups, or when Z^3 and the adjacent atom are CR^1 and CR^{1a} , R^1 and R^{1a} may together represent (C_{1-2}) alkylenedioxy,

provided that R¹ and R^{1a}, on the same carbon atom are not both optionally substituted hydroxy or amino;

provided that

(i) when R^A is optionally substituted quinolin-4-yl:

- 5 it is unsubstituted in the 6-position; or
- it is substituted by at least one hydroxy (C₁₋₆)alkyl, cyano or carboxy group at the 2-, 5-, 6-, 7- or 8-position; or
- it is substituted by at least one trifluoromethoxy group; or
- R³ is halogen;

10 (ii) when R^A is optionally substituted quinazolin-4-yl, cinnolin-4-yl, 1,5-naphthyridin-4-yl, 1,7-naphthyridin-4-yl or 1,8-naphthyridin-4-yl:

- it is substituted by at least one hydroxy (C₁₋₆)alkyl, cyano or carboxy group at the 2-, 5-, 6-, 7- or 8-position as available; or
- it is substituted by at least one trifluoromethoxy group; or

15 R³ is halogen;

R² is hydrogen, or (C₁₋₄)alkyl or (C₂₋₄)alkenyl optionally substituted with 1 to 3 groups selected from:

 amino optionally substituted by one or two (C₁₋₄)alkyl groups; carboxy; (C₁₋₄)alkoxycarbonyl; (C₁₋₄)alkylcarbonyl; (C₂₋₄)alkenyloxycarbonyl; (C₂₋₄)alkenylcarbonyl; aminocarbonyl wherein the amino group is optionally substituted by hydroxy, (C₁₋₄)alkyl, hydroxy(C₁₋₄)alkyl, aminocarbonyl(C₁₋₄)alkyl, (C₂₋₄)alkenyl, (C₁₋₄)alkylsulphonyl, trifluoromethylsulphonyl, (C₂₋₄)alkenylsulphonyl, (C₁₋₄)alkoxycarbonyl, (C₁₋₄)alkylcarbonyl, (C₂₋₄)alkenyloxycarbonyl or (C₂₋₄)alkenylcarbonyl; cyano; tetrazolyl; 2-oxo-oxazolidinyl optionally substituted by R¹⁰; 3-hydroxy-3-cyclobutene-1,2-dione-4-yl; 2,4-thiazolidinedione-5-yl; tetrazol-5-ylaminocarbonyl; 1,2,4-triazol-5-yl optionally substituted by R¹⁰; 5-oxo-1,2,4-oxadiazol-3-yl; halogen; (C₁₋₄)alkylthio; trifluoromethyl; hydroxy optionally substituted by (C₁₋₄)alkyl, (C₂₋₄)alkenyl, (C₁₋₄)alkoxycarbonyl, (C₁₋₄)alkylcarbonyl, (C₂₋₄)alkenyloxycarbonyl, (C₂₋₄)alkenylcarbonyl; oxo; (C₁₋₄)alkylsulphonyl; (C₂₋₄)alkenylsulphonyl; or (C₁₋₄)aminosulphonyl wherein the amino group is optionally substituted by (C₁₋₄)alkyl or (C₂₋₄)alkenyl;

R³ is hydrogen; or

35 when R^V and R^W are a bond, R³ is in the 2-, 3- or 4- position and when R^V and R^W are not a bond, R³ is in the 1-, 2-, 3- or 4-position and R³ is:

carboxy; (C₁₋₆)alkoxycarbonyl; aminocarbonyl wherein the amino group is optionally substituted by hydroxy, (C₁₋₆)alkyl, hydroxy(C₁₋₆)alkyl, aminocarbonyl(C₁₋₆)alkyl, (C₂₋₆)alkenyl, (C₁₋₆)alkylsulphonyl, trifluoromethylsulphonyl, (C₂₋₆)alkenylsulphonyl, (C₁₋₆)alkoxycarbonyl, (C₁₋₆)alkylcarbonyl, (C₂₋₆)alkenyloxycarbonyl or (C₂₋₆)alkenylcarbonyl and optionally further substituted by (C₁₋₆)alkyl, hydroxy(C₁₋₆)alkyl, aminocarbonyl(C₁₋₆)alkyl or (C₂₋₆)alkenyl; cyano; tetrazolyl; 2-oxo-oxazolidinyl 5 optionally substituted by R¹⁰; 3-hydroxy-3-cyclobutene-1,2-dione-4-yl; 2,4-thiazolidinedione-5-yl; tetrazol-5-ylaminocarbonyl; 1,2,4-triazol-5-yl optionally substituted by R¹⁰; or 5-oxo-1,2,4-oxadiazol-3-yl; or

10 (C₁₋₄)alkyl or ethenyl optionally substituted with any of the groups listed above for R³ and/or 0 to 2 groups R¹² independently selected from:
halogen; (C₁₋₆)alkylthio; trifluoromethyl; (C₁₋₆)alkoxycarbonyl; (C₁₋₆)alkylcarbonyl; (C₂₋₆)alkenyloxycarbonyl; (C₂₋₆)alkenylcarbonyl; hydroxy optionally 15 substituted by (C₁₋₆)alkyl, (C₂₋₆)alkenyl, (C₁₋₆)alkoxycarbonyl, (C₁₋₆)alkylcarbonyl, (C₂₋₆)alkenyloxycarbonyl, (C₂₋₆)alkenylcarbonyl or aminocarbonyl wherein the amino group is optionally substituted by (C₁₋₆)alkyl, (C₂₋₆)alkenyl, (C₁₋₆)alkylcarbonyl or (C₂₋₆)alkenylcarbonyl; amino optionally mono- or disubstituted by (C₁₋₆)alkoxycarbonyl, (C₁₋₆)alkylcarbonyl, (C₂₋₆)alkenyloxycarbonyl, (C₂₋₆)alkenylcarbonyl, (C₁₋₆)alkyl, 20 (C₂₋₆)alkenyl, (C₁₋₆)alkylsulphonyl, (C₂₋₆)alkenylsulphonyl or aminocarbonyl wherein the amino group is optionally substituted by (C₁₋₆)alkyl or (C₂₋₆)alkenyl; aminocarbonyl wherein the amino group is optionally substituted by (C₁₋₆)alkyl, hydroxy(C₁₋₆)alkyl, aminocarbonyl(C₁₋₆)alkyl, (C₂₋₆)alkenyl, (C₁₋₆)alkoxycarbonyl, (C₁₋₆)alkylcarbonyl, 25 (C₂₋₆)alkenyloxycarbonyl or (C₂₋₆)alkenylcarbonyl and optionally further substituted by (C₁₋₆)alkyl, hydroxy(C₁₋₆)alkyl, aminocarbonyl(C₁₋₆)alkyl or (C₂₋₆)alkenyl; o xo; (C₁₋₆)alkylsulphonyl; (C₂₋₆)alkenylsulphonyl; or (C₁₋₆)aminosulphonyl wherein the amino group is optionally substituted by (C₁₋₆)alkyl or (C₂₋₆)alkenyl; or

30 hydroxy optionally substituted by (C₁₋₆)alkyl, (C₂₋₆)alkenyl, (C₁₋₆)alkoxycarbonyl, (C₁₋₆)alkylcarbonyl, (C₂₋₆)alkenyloxycarbonyl, (C₂₋₆)alkenylcarbonyl or aminocarbonyl wherein the amino group is optionally substituted by (C₁₋₆)alkyl, (C₂₋₆)alkenyl, (C₁₋₆)alkylcarbonyl or (C₂₋₆)alkenylcarbonyl; or

35 amino optionally mono- or disubstituted by (C₁₋₆)alkoxycarbonyl, (C₁₋₆)alkylcarbonyl, (C₂₋₆)alkenyloxycarbonyl, (C₂₋₆)alkenylcarbonyl, (C₁₋₆)alkyl, (C₂₋₆)alkenyl, (C₁₋₆)alkylsulphonyl, (C₂₋₆)alkenylsulphonyl or aminocarbonyl wherein the amino group is optionally substituted by (C₁₋₆)alkyl or (C₂₋₆)alkenyl; or

halogen;

provided that when R^3 is in the 4- position it is not optionally substituted hydroxyl or
5 amino or halogen;

in addition when R^3 is disubstituted with a hydroxy or amino containing substituent and a carboxy containing substituent these may optionally together form a cyclic ester or amide linkage, respectively;

10

R^{10} is selected from $(C_{1-4})alkyl$ and $(C_{2-4})alkenyl$ either of which may be optionally substituted by a group R^{12} as defined above; carboxy; aminocarbonyl wherein the amino group is optionally substituted by hydroxy, $(C_{1-6})alkyl$, $(C_{2-6})alkenyl$, $(C_{1-6})alkylsulphonyl$, trifluoromethylsulphonyl, $(C_{2-6})alkenylsulphonyl$, $(C_{1-6})alkoxycarbonyl$, $(C_{1-6})alkylcarbonyl$, $(C_{2-6})alkenyloxycarbonyl$ or $(C_{2-6})alkenylcarbonyl$ and optionally further substituted by $(C_{1-6})alkyl$ or $(C_{2-6})alkenyl$; $(C_{1-6})alkylsulphonyl$; trifluoromethylsulphonyl; $(C_{2-6})alkenylsulphonyl$; $(C_{1-6})alkoxycarbonyl$; $(C_{1-6})alkylcarbonyl$; $(C_{2-6})alkenyloxycarbonyl$; and $(C_{2-6})alkenylcarbonyl$;

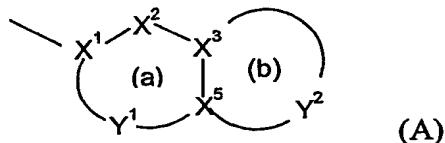
15

20 R^4 is a group $-CH_2-R^{5_1}$ in which R^{5_1} is selected from:

$(C_{4-8})alkyl$; hydroxy $(C_{4-8})alkyl$; $(C_{1-4})alkoxy(C_{4-8})alkyl$; $(C_{1-4})alkanoyloxy(C_{4-8})alkyl$; $(C_{3-8})cycloalkyl(C_{4-8})alkyl$; hydroxy-, $(C_{1-6})alkoxy-$ or $(C_{1-6})alkanoyloxy-(C_{3-8})cycloalkyl(C_{4-8})alkyl$; cyano $(C_{4-8})alkyl$; $(C_{4-8})alkenyl$; $(C_{4-8})alkynyl$; tetrahydrofuryl; mono- or di- $(C_{1-6})alkylamino(C_{4-8})alkyl$; acylamino $(C_{4-8})alkyl$; $(C_{1-6})alkyl-$ or acyl-aminocarbonyl $(C_{4-8})alkyl$; mono- or di- $(C_{1-6})alkylamino(hydroxy) (C_{4-8})alkyl$; or

25

30 R^4 is a group $-U-R^{5_2}$ where R^{5_2} is an optionally substituted bicyclic carbocyclic or heterocyclic ring system (A):



containing up to four heteroatoms in each ring in which

at least one of rings (a) and (b) is aromatic;

X^1 is C or N when part of an aromatic ring or CR^{14} when part of a non aromatic

35 ring;

X^2 is N, NR¹³, O, S(O)_X, CO or CR¹⁴ when part of an aromatic or non-aromatic ring or may in addition be CR¹⁴R¹⁵ when part of a non aromatic ring;

X^3 and X^5 are independently N or C;

Y¹ is a 0 to 4 atom linker group each atom of which is independently selected from N, NR¹³, O, S(O)_X, CO and CR¹⁴ when part of an aromatic or non-aromatic ring or may additionally be CR¹⁴R¹⁵ when part of a non aromatic ring,

Y² is a 2 to 6 atom linker group, each atom of Y² being independently selected from N, NR¹³, O, S(O)_X, CO and CR¹⁴ when part of an aromatic or non-aromatic ring or may additionally be CR¹⁴R¹⁵ when part of a non aromatic ring;

each of R¹⁴ and R¹⁵ is independently selected from: H; (C₁₋₄)alkylthio; halo; carboxy(C₁₋₄)alkyl; halo(C₁₋₄)alkoxy; halo(C₁₋₄)alkyl; (C₁₋₄)alkyl; (C₂₋₄)alkenyl; (C₁₋₄)alkoxycarbonyl; formyl; (C₁₋₄)alkylcarbonyl; (C₂₋₄)alkenyloxycarbonyl; (C₂₋₄)alkenylcarbonyl; (C₁₋₄)alkylcarbonyloxy; (C₁₋₄)alkoxycarbonyl(C₁₋₄)alkyl; hydroxy; hydroxy(C₁₋₄)alkyl; mercapto(C₁₋₄)alkyl; (C₁₋₄)alkoxy; nitro; cyano; carboxy; amino or aminocarbonyl optionally substituted as for corresponding substituents in R³; (C₁₋₄)alkylsulphonyl; (C₂₋₄)alkenylsulphonyl; or aminosulphonyl wherein the amino group is optionally substituted by (C₁₋₄)alkyl or (C₂₋₄)alkenyl; aryl; aryl(C₁₋₄)alkyl; aryl(C₁₋₄)alkoxy;

each R¹³ is independently H; trifluoromethyl; (C₁₋₄)alkyl optionally substituted by hydroxy, carboxy, (C₁₋₆)alkoxycarbonyl, (C₁₋₆)alkoxy, (C₁₋₆)alkylthio, halo or trifluoromethyl; (C₂₋₄)alkenyl; aryl; aryl (C₁₋₄)alkyl; arylcarbonyl; heteroarylcarbonyl; (C₁₋₄)alkoxycarbonyl; (C₁₋₄)alkylcarbonyl; formyl; (C₁₋₆)alkylsulphonyl; or aminocarbonyl wherein the amino group is optionally substituted by (C₁₋₄)alkoxycarbonyl, (C₁₋₄)alkylcarbonyl, (C₂₋₄)alkenyloxycarbonyl, (C₂₋₄)alkenylcarbonyl, (C₁₋₄)alkyl or (C₂₋₄)alkenyl and optionally further substituted by (C₁₋₄)alkyl or (C₂₋₄)alkenyl;

each x is independently 0, 1 or 2;

U is CO, SO₂ or CH₂; or

R⁴ is a group -X^{1a}-X^{2a}-X^{3a}-X^{4a} in which:

X^{1a} is CH₂, CO or SO₂;

X^{2a} is CR^{14a}R^{15a};

X^{3a} is NR^{13a}, O, S, SO₂ or CR^{14a}R^{15a}; wherein:

each of R^{14a} and R^{15a} is independently selected from the groups listed above for R¹⁴ and R¹⁵, provided that R^{14a} and R^{15a} on the same carbon atom are not both selected from optionally substituted hydroxy and optionally substituted amino; or R^{14a} and R^{15a} together represent oxo;

5 R^{13a} is hydrogen; trifluoromethyl; (C_{1-6})alkyl; (C_{2-6})alkenyl; (C_{1-6})alkoxycarbonyl; (C_{1-6})alkylcarbonyl; or aminocarbonyl wherein the amino group is optionally substituted by (C_{1-6})alkoxycarbonyl, (C_{1-6})alkylcarbonyl, (C_{2-6})alkenyloxycarbonyl, (C_{2-6})alkenylcarbonyl, (C_{1-6})alkyl or (C_{2-6})alkenyl and 10 optionally further substituted by (C_{1-6})alkyl or (C_{2-6})alkenyl; or

two R^{14a} groups or an R^{13a} and an R^{14a} group on adjacent atoms together represent a bond and the remaining R^{13a} , R^{14a} and R^{15a} groups are as above defined; or two R^{14a} groups and two R^{15a} groups on adjacent atoms together represent bonds such that X^{2a} and X^{3a} is triple bonded;

10 X^{4a} is phenyl or C or N linked monocyclic aromatic 5- or 6-membered heterocycle containing up to four heteroatoms selected from O, S and N and: optionally C-substituted by up to three groups selected from (C_{1-4})alkylthio; halo; carboxy(C_{1-4})alkyl; halo(C_{1-4})alkoxy; halo(C_{1-4})alkyl; (C_{1-4})alkyl; (C_{2-4})alkenyl; (C_{1-4})alkoxycarbonyl; formyl; (C_{1-4})alkylcarbonyl; (C_{2-4})alkenyloxycarbonyl; (C_{2-4})alkenylcarbonyl; (C_{1-4})alkylcarbonyloxy; (C_{1-4})alkoxycarbonyl(C_{1-4})alkyl; hydroxy; hydroxy(C_{1-4})alkyl; mercapto(C_{1-4})alkyl; (C_{1-4})alkoxy; nitro; cyano; carboxy; amino or aminocarbonyl optionally substituted as for corresponding substituents in R^3 ; (C_{1-4})alkylsulphonyl; (C_{2-4})alkenylsulphonyl; or aminosulphonyl wherein the amino group is optionally substituted by (C_{1-4})alkyl or (C_{2-4})alkenyl; aryl, aryl(C_{1-4})alkyl or aryl(C_{1-4})alkoxy; and

15 optionally N substituted by trifluoromethyl; (C_{1-4})alkyl optionally substituted by hydroxy, (C_{1-6})alkoxy, (C_{1-6})alkylthio, halo or trifluoromethyl; (C_{2-4})alkenyl; aryl; aryl(C_{1-4})alkyl; (C_{1-4})alkoxycarbonyl; (C_{1-4})alkylcarbonyl; formyl; (C_{1-6})alkylsulphonyl; or aminocarbonyl wherein the amino group is optionally substituted by (C_{1-4})alkoxycarbonyl, (C_{1-4})alkylcarbonyl, (C_{2-4})alkenyloxycarbonyl, (C_{2-4})alkenylcarbonyl, (C_{1-4})alkyl or (C_{2-4})alkenyl and optionally further substituted by (C_{1-4})alkyl or (C_{2-4})alkenyl;

20 n is 0 or 1 and AB is $NR^{11}CO$, $CONR^{11}$, $CO-CR^8R^9$, CR^6R^7-CO , $O-CR^8R^9$, CR^6R^7-O , $NHR^{11}-CR^8R^9$, $CR^6R^7-NHR^{11}$, $NR^{11}SO_2$, $CR^6R^7-SO_2$ or $CR^6R^7-CR^8R^9$, provided that when R^V and R^W are a bond and n=0, B is not NR^{11} , O or SO_2 , or n is 0 and AB is $NH-CO-NH$ or $NH-CO-O$ and R^V/R^W are not a bond; or n is 0 and AB is $CR^6R^7SO_2NR^2$, $CR^6R^7CONR^2$ or $CR^6R^7CH_2NR^2$ and R^V/R^W are not a bond;

25 30 provided that R^6 and R^7 , and R^8 and R^9 are not both optionally substituted hydroxy or amino; and wherein:

each of R⁶, R⁷, R⁸ and R⁹ is independently selected from: H; (C₁₋₆)alkoxy; (C₁₋₆)alkylthio; halo; trifluoromethyl; azido; (C₁₋₆)alkyl; (C₂₋₆)alkenyl; (C₁₋₆)alkoxycarbonyl; (C₁₋₆)alkylcarbonyl; (C₂₋₆)alkenylloxycarbonyl; (C₂₋₆)alkenylcarbonyl; hydroxy, amino or aminocarbonyl optionally substituted as for 5 corresponding substituents in R³; (C₁₋₆)alkylsulphonyl; (C₂₋₆)alkenylsulphonyl; or (C₁₋₆)aminosulphonyl wherein the amino group is optionally substituted by (C₁₋₆)alkyl or (C₂₋₆)alkenyl;
or R⁶ and R⁸ together represent a bond and R⁷ and R⁹ are as above defined;

10 and each R¹¹ is independently H; trifluoromethyl; (C₁₋₆)alkyl; (C₂₋₆)alkenyl; (C₁₋₆)alkoxycarbonyl; (C₁₋₆)alkylcarbonyl; or aminocarbonyl wherein the amino group is optionally substituted by (C₁₋₆)alkoxycarbonyl, (C₁₋₆)alkylcarbonyl, (C₂₋₆)alkenylloxycarbonyl, (C₂₋₆)alkenylcarbonyl, (C₁₋₆)alkyl or (C₂₋₆)alkenyl and optionally further substituted by (C₁₋₆)alkyl or (C₂₋₆)alkenyl;

15 or where one of R³ and R⁶, R⁷, R⁸ or R⁹ contains a carboxy group and the other contains a hydroxy or amino group they may together form a cyclic ester or amide linkage or where R³ contains a carboxy group and A or B is NH they may be condensed to form a cyclic amide.

20 2. A compound according to claim 1 wherein R^A is optionally substituted isoquinolin-5-yl, quinolin-8-yl, thieno[3,2-b]pyridin-7-yl, 2,3-dihydro-[1,4]dioxino[2,3-b]pyridin-8-yl, quinoxalin-5-yl, isoquinolin-8-yl, [1,6]-naphthyridin-4-yl, 1,2,3,4-tetrahydroquinoxalin-5-yl or 1,2-dihydroisoquinoline-8-yl.

25 3. A compound according to any preceding claim wherein R¹ is hydrogen, methoxy, methyl, cyano or halogen and R^{1a} is H.

4. A compound according to any preceding claim wherein R² is hydrogen.

30 5. A compound according to any preceding claim wherein R³ is hydrogen, fluoro or hydroxy substituted in the 1- or 3-position.

6. A compound according to any preceding claim wherein n is 0 and either A and B are both CH₂, A is CHO or CH₂ and B is CH₂ or A is NH and B is CO.

7. A compound according to any preceding claim wherein R^4 is $-U-R^5_2$, the group $-U-$ is $-CH_2-$, and R^5_2 is an aromatic heterocyclic ring (A) having 8-11 ring atoms including 2-4 heteroatoms of which at least one is N or NR^{13} in which Y^2 contains 2-3 heteroatoms, one of which is S and 1-2 are N, with one N bonded to X^3 , or the

5 heterocyclic ring (A) has ring (a) aromatic selected from optionally substituted benzo and pyrido and ring (b) non-aromatic and Y^2 has 3-5 atoms including a heteroatom bonded to X^5 selected from O, S or NR^{13} , where R^{13} is other than hydrogen, and NHCO bonded via N to X^3 , or O bonded to X^3 .

10 8. A compound according to any of claims 1 to 6 wherein R^5_2 is selected from: 3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]oxazin-6-yl
3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-yl
7-chloro-3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-yl
7-fluoro-3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-yl

15 2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-yl.

9. A compound selected from:
1-Hydroxy-*t*-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-*r*-cyclohexanecarboxylic acid thieno[3,2-b]pyridin-7-ylamide
20 1-Hydroxy-*t*-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-*r*-cyclohexanecarboxylic acid (2,3-dihydro-[1,4]dioxino[2,3-b]pyridin-8-yl)-amide
trans-4-[(3-Oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-cyclohexanecarboxylic acid quinolin-4-ylamide
trans-4-[(3-Oxo-3,4-dihydro-2H-benzo[1,4]thiazin-6-ylmethyl)-amino]-
25 cyclohexanecarboxylic acid isoquinolin-5-ylamide
1-Hydroxy-*t*-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-*r*-cyclohexanecarboxylic acid (2-methoxy-quinolin-8-yl)-amide
4-[(3,4-Dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-1-hydroxy-cyclohexanecarboxylic acid (2-methoxy-quinolin-8-yl)-amide
30 6-(4-Hydroxy-4-[2-(2-methoxy-quinolin-8-yl)-ethyl]-cyclohexylamino)-methyl)-4H-pyrido[3,2-b][1,4]oxazin-3-one
6-(4-Hydroxy-4-[2-(2-methoxy-quinolin-8-yl)-ethyl]-cyclohexylamino)-methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one
(1R,3S,4R)-3-Hydroxy-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]oxazin-6-ylmethyl)-
35 amino]-cyclohexanecarboxylic acid (2-cyano-quinolin-8-yl)-amide 1-Hydroxy-*t*-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-*r*-cyclohexanecarboxylic acid (2-cyano-quinolin-8-yl)-amide 1-Hydroxy-*t*-4-[(3-oxo-3,4-

dihydro-2H-pyrido[3,2-b][1,4]oxazin-6-ylmethyl)-amino]-*r*-cyclohexanecarboxylic acid (2-cyano-quinolin-8-yl)-amide(1S,3R,4S)-3-Hydroxy-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-cyclohexanecarboxylic acid (2-cyano-quinolin-8-yl)-amide

5 (1S,3R,4S)-3-Hydroxy-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]oxazin-6-ylmethyl)-amino]-cyclohexanecarboxylic acid (2-cyano-quinolin-8-yl)-amide

(1R,3R,4R)-3-Hydroxy-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-cyclohexanecarboxylic acid (2-cyano-quinolin-8-yl)-amide

(1R,3R,4R)-3-Hydroxy-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-cyclohexanecarboxylic acid (2-cyano-quinolin-8-yl)-amide

10 (1R,3S,4R)-3-Hydroxy-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-cyclohexanecarboxylic acid (2-cyano-quinolin-8-yl)-amide 1-Hydroxy-*t*-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]oxazin-6-ylmethyl)-amino]-*r*-cyclohexanecarboxylic acid (2-methoxy-quinolin-8-yl)-amide 1-Hydroxy-*t*-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]oxazin-6-ylmethyl)-amino]-*r*-cyclohexanecarboxylic acid (2-methyl-quinolin-8-yl)-amide

15 1-Hydroxy-*t*-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-*r*-cyclohexanecarboxylic acid (2-methyl-quinolin-8-yl)-amide

(1R,3R,4R)-3-Hydroxy-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-cyclohexanecarboxylic acid (2-methoxy-quinolin-8-yl)-amide

20 7-(*r*-4-Hydroxy-4-[2-(2-methoxy-quinolin-8-yl)-ethyl]-*c*-cyclohexylamino)-methyl)-1H-pyrido[2,3-b][1,4]thiazin-2-one

1-Hydroxy-*t*-4-[(2-oxo-2,3-dihydro-1H-pyrido[3,4-b][1,4]oxazin-7-ylmethyl)-amino]-*r*-cyclohexanecarboxylic acid (2-methyl-quinolin-8-yl)-amide

25 *t*-4-[(7-Fluoro-3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-1-hydroxy-*r*-cyclohexanecarboxylic acid (2-methoxy-quinolin-8-yl)-amide

t-4-[(7-Chloro-3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-1-hydroxy-*r*-cyclohexanecarboxylic acid (2-methoxy-quinolin-8-yl)-amide

30 1-Hydroxy-*t*-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-*r*-cyclohexanecarboxylic acid (3-methyl-quinoxalin-5-yl)-amide

1-Hydroxy-*t*-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-*r*-cyclohexanecarboxylic acid (2-methyl-1-oxo-1,2-dihydro-isoquinolin-8-yl)-amide

35 1-Hydroxy-*t*-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-*r*-cyclohexanecarboxylic acid (1-methoxy-isoquinolin-8-yl)-amide

1-Hydroxy-*t*-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-*r*-cyclohexanecarboxylic acid (5-methoxy-quinolin-4-yl)-amide

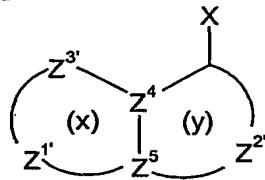
1-Hydroxy-*t*-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]oxazin-6-ylmethyl)-amino]-*r*-cyclohexanecarboxylic acid [1,6]naphthyridin-4-ylamide
1-Hydroxy-*t*-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-*r*-cyclohexanecarboxylic acid (2-methyl-quinoxalin-5-yl)-amide
5 (1R,3S,4R)-3-Fluoro-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]oxazin-6-ylmethyl)-amino]-cyclohexanecarboxylic acid (6-methoxy-[1,5]naphthyridin-4-yl)-amide
(1R,3S,4R)-3-Fluoro-4-[(7-fluoro-3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-cyclohexanecarboxylic acid (6-methoxy-[1,5]naphthyridin-4-yl)-amide
1-Hydroxy-*t*-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]oxazin-6-ylmethyl)-amino]-*c*-cyclohexanecarboxylic acid (3-methyl-1,2,3,4-tetrahydro-quinoxalin-5-yl)-amide
10 1-Hydroxy-*t*-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-*r*-cyclohexanecarboxylic acid (3-methoxy-quinoxalin-5-yl)-amide *t*-4-[(2,3-Dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amino]-1-hydroxy-*c*-cyclohexanecarboxylic acid (2-methyl-quinolin-8-yl)-amide *t*-4-[(2,3-Dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amino]-cyclohexanecarboxylic acid (2-methyl-quinolin-8-yl)-amide (1R,3S,4R)-4-[(2,3-Dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amino]-3-hydroxy-cyclohexanecarboxylic acid (2-cyano-quinolin-8-yl)-amide
15 *t*-4-[(2,3-Dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amino]-1-hydroxy-*r*-cyclohexanecarboxylic acid (2-cyano-quinolin-8-yl)-amide
20 (1R,3R,4R)-4-[(2,3-Dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amino]-3-methoxy-cyclohexanecarboxylic acid (2-methyl-quinolin-8-yl)-amide 1-Hydroxy-*t*-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-*r*-cyclohexanecarboxylic acid (6-cyano-quinolin-4-yl)-amide *t*-4-[(2,3-Dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amino]-1-hydroxy-*r*-cyclohexanecarboxylic acid (3-methoxy-quinoxalin-5-yl)-amide *t*-4-[(2,3-Dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amino]-1-hydroxy-*N*-(3-methyl-5-quinoxaliny)-*r*-cyclohexanecarboxamide
25 or a pharmaceutically acceptable derivative thereof.

30 10. A method of treatment of bacterial infections in mammals, particularly in man, which method comprises the administration to a mammal in need of such treatment an effective amount of a compound according to claim 1.

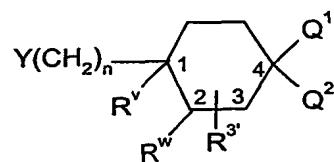
11. The use of a compound according to claim 1, in the manufacture of a medicament for use in the treatment of bacterial infections in mammals.

35 12. A pharmaceutical composition comprising a compound according to claim 1, and a pharmaceutically acceptable carrier.

13. A process for preparing a compound according to claim 1, which process comprises reacting a compound of formula (IV) with a compound of formula (V):



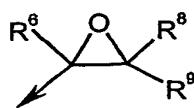
(IV)



(V)

5 wherein n is as defined in formula (I); $Z1', Z2', Z3', R1'$ and $R3'$ are $Z1, Z2, Z3, R1$ and $R3$ as defined in formula (I) or groups convertible thereto; $Z4, Z5, Rv$ and Rw are as defined in formula (I);
 10 $Q1$ is $NR2'R4'$ or a group convertible thereto wherein $R2'$ and $R4'$ are $R2$ and $R4$ as defined in formula (I) or groups convertible thereto and $Q2$ is H or $R3'$ or $Q1$ and $Q2$ together form an optionally protected oxo group;
 and X and Y may be the following combinations:

- (i) one of X and Y is CO_2RY and the other is CH_2CO_2RX ;
- (ii) X is CHR^6R^7 and Y is $C(=O)R^9$;
- 15 (iii) X is $CR^7=PR^2Z_3$ and Y is $C(=O)R^9$;
- (iv) X is $C(=O)R^7$ and Y is $CR^9=PR^2Z_3$;
- (v) one of Y and X is COW and the other is $NHR^{11'}$, NCO or $NR^{11'}COW$;
- (vi) X is $NHR^{11'}$ and Y is $C(=O)R^8$ or X is $C(=O)R^6$ and Y is $NHR^{11'}$;
- (vii) X is $NHR^{11'}$ and Y is CR^8R^9W ;
- 20 (viii) X is W or OH and Y is CH_2OH ;
- (ix) X is $NHR^{11'}$ and Y is SO_2W ;
- (x) one of X and Y is $(CH_2)_pW$ and the other is $(CH_2)_qNHR^{11'}$, $(CH_2)_qOH$, $(CH_2)_qSH$ or $(CH_2)_qSCOR^X$ where $p+q=1$;
- (xi) one of X and Y is OH and the other is $-CH=N_2$;
- 25 (xii) X is NCO and Y is OH or NH_2 ;
- (xiii) X is $CR^6R^7SO_2W$, $A'COW$, $CR^6=CH_2$ or oxirane and Y is $NHR^{2'}$;
- (xiv) X is W and Y is $CONHR^{11'}$ or $OCONH_2$
- (xv) X is W and Y is $-C\equiv CH$ followed by hydrogenation of the intermediate $-C\equiv C-$ group;
- 30 in which W is a leaving group, e.g. halo, methanesulphonyloxy, trifluoromethanesulphonyloxy or imidazolyl; R^X and RY are $(C_{1-6})alkyl$; R^Z is aryl or $(C_{1-6})alkyl$; A' and $NR^{11'}$ are A and NR^{11} as defined in formula (I), or groups convertible thereto; and oxirane is:

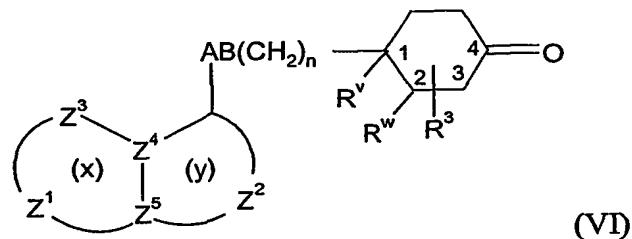


wherein R⁶, R⁸ and R⁹ are as defined in formula (I);

and thereafter optionally or as necessary converting Q¹ and Q² to NR^{2'}R^{4'}; converting A', Z^{1'}, Z^{2'}, Z^{3'}, R^{1'}, R^{2'}, R^{3'}, R^{4'} and NR^{11'} to A, Z¹, Z², Z³, R¹, R², R³, R⁴ and NR^{11'};

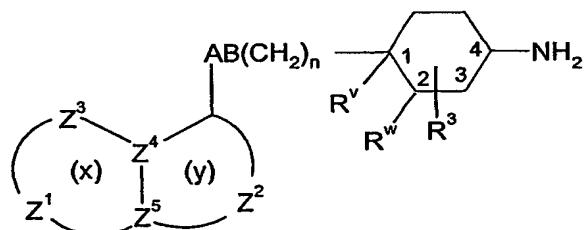
5 converting A-B to other A-B, interconverting R^V, R^W, R¹, R², R³ and/or R⁴, and/or forming a pharmaceutically acceptable derivative thereof.

14. A compound of formula (VI):



10 wherein the variables are as described for formula (I).

15. A compound of formula (VII):



wherein the variables are as described for formula (I).